RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/783,710A
Source: IFW0
Date Processed by STIC: 06-05

ENTERED

IFWO

RAW SEQUENCE LISTING DATE: 01/06/2005
PATENT APPLICATION: **US/10/783,710A** TIME: 16:07:23

Input Set : **D:\38-21(52743)B.rpt**
Output Set: **N:\CRF4\01062005\J783710A.raw**

<110> APPLICANT: Sun, Jindong
Zobrist, Kimberly
Wu, Jingrui
Fu, Changlin
Dotson, Stanton B.
Lutfiyya, Linda L.
<120> TITLE OF INVENTION: Transgenic Plants
<130> FILE REFERENCE: 38-21(52743)B
C--> **<140> CURRENT APPLICATION NUMBER: US/10/783,710A**
C--> **<141> CURRENT FILING DATE: 2004-02-21**
<150> PRIOR APPLICATION NUMBER: US 60/449,054
<151> PRIOR FILING DATE: 2003-02-22
<160> NUMBER OF SEQ ID NOS: 12
<210> SEQ ID NO: 1
<211> LENGTH: 270
<212> TYPE: PRT
<213> ORGANISM: Arabidopsis thaliana
<400> SEQUENCE: 1

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1               5                  10                  15
Pro Thr Gly Gly Ala Thr Ser Ser Ala Thr Ala Ser Gly Ser Ser Ser
            20                  25                  30
Gly Arg Arg Pro Arg Gly Arg Pro Ala Gly Ser Lys Asn Lys Pro Lys
        35                  40                  45
Pro Pro Thr Ile Ile Thr Arg Asp Ser Pro Asn Val Leu Arg Ser His
    50                  55                  60
Val Leu Glu Val Thr Ser Gly Ser Asp Ile Ser Glu Ala Val Ser Thr
65                  70                  75                  80
Tyr Ala Thr Arg Arg Gly Cys Gly Val Cys Ile Ile Ser Gly Thr Gly
                85                  90                  95
Ala Val Thr Asn Val Thr Ile Arg Gln Pro Ala Ala Pro Ala Gly Gly
            100                 105                 110
Gly Val Ile Thr Leu His Gly Arg Phe Asp Ile Leu Ser Leu Thr Gly
        115                 120                 125
Thr Ala Leu Pro Pro Pro Ala Pro Pro Gly Ala Gly Gly Leu Thr Val
    130                 135                 140
Tyr Leu Ala Gly Gly Gln Gly Gln Val Val Gly Gly Asn Val Ala Gly
145                 150                 155                 160
Ser Leu Ile Ala Ser Gly Pro Val Val Leu Met Ala Ala Ser Phe Ala
                165                 170                 175
Asn Ala Val Tyr Asp Arg Leu Pro Ile Glu Glu Glu Glu Thr Pro Pro
            180                 185                 190
Pro Arg Thr Thr Gly Val Gln Gln Gln Gln Pro Glu Ala Ser Gln Ser
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(pg. 6)

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PATENT APPLICATION: US/10/783,710A TIME: 16:07:23

Input Set : D:\38-21(52743)B.rpt
Output Set: N:\CRF4\01062005\J783710A.raw

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62          195                 200                 205
64 Ser Glu Val Thr Gly Ser Gly Ala Gln Ala Cys Glu Ser Asn Leu Gln
65      210                 215                 220
67 Gly Gly Asn Gly Gly Gly Gly Val Ala Phe Tyr Asn Leu Gly Met Asn
68 225                 230                 235                 240
70 Met Asn Asn Phe Gln Phe Ser Gly Gly Asp Ile Tyr Gly Met Ser Gly
71                  245                 250                 255
73 Gly Ser Gly Gly Gly Gly Gly Gly Ala Thr Arg Pro Ala Phe
74              260                 265                 270
77 <210> SEQ ID NO: 2
78 <211> LENGTH: 295
79 <212> TYPE: PRT
80 <213> ORGANISM: Oryza sativa
82 <400> SEQUENCE: 2
84 Met Glu His Ser Lys Met Ser Pro Asp Lys Ser Pro Val Gly Glu Gly
85 1               5                   10                  15
87 Asp His Ala Gly Gly Ser Gly Ser Gly Gly Val Gly Gly Asp His Gln
88              20                  25                  30
90 Pro Ser Ser Ser Ala Met Val Pro Val Glu Gly Gly Ser Gly Ser Ala
91          35                  40                  45
93 Gly Gly Ser Gly Ser Gly Gly Pro Thr Arg Arg Pro Arg Gly Arg Pro
94      50                  55                  60
96 Pro Gly Ser Lys Asn Lys Pro Lys Pro Pro Ile Ile Val Thr Arg Asp
97 65                  70                  75                  80
99 Ser Pro Asn Ala Leu His Ser His Val Leu Glu Val Ala Gly Gly Ala
100                 85                  90                  95
102 Asp Val Val Asp Cys Val Ala Glu Tyr Ala Arg Arg Arg Gly Arg Gly
103             100                 105                 110
105 Val Cys Val Leu Ser Gly Gly Gly Ala Val Val Asn Val Ala Leu Arg
106         115                 120                 125
108 Gln Pro Gly Ala Ser Pro Pro Gly Ser Met Val Ala Thr Leu Arg Gly
109     130                 135                 140
111 Arg Phe Glu Ile Leu Ser Leu Thr Gly Thr Val Leu Pro Pro Pro Ala
112 145                 150                 155                 160
114 Pro Pro Gly Ala Ser Gly Leu Thr Val Phe Leu Ser Gly Gly Gln Gly
115                 165                 170                 175
117 Gln Val Ile Gly Gly Ser Val Val Gly Pro Leu Val Ala Ala Gly Pro
118             180                 185                 190
120 Val Val Leu Met Ala Ala Ser Phe Ala Asn Ala Val Tyr Glu Arg Leu
121         195                 200                 205
123 Pro Leu Glu Gly Glu Glu Glu Glu Val Ala Ala Pro Ala Ala Gly Gly
124     210                 215                 220
126 Glu Ala Gln Asp Gln Val Ala Gln Ser Ala Gly Pro Pro Gly Gln Gln
127 225                 230                 235                 240
129 Pro Ala Ala Ser Gln Ser Ser Gly Val Thr Gly Gly Asp Gly Thr Gly
130                 245                 250                 255
132 Gly Ala Gly Gly Met Ser Leu Tyr Asn Leu Ala Gly Asn Val Gly Gly
133             260                 265                 270
135 Tyr Gln Leu Pro Gly Asp Asn Phe Gly Gly Trp Ser Gly Ala Gly Ala
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Input Set : D:\38-21(52743)B.rpt
Output Set: N:\CRF4\01062005\J783710A.raw

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136         275                 280                 285
138 Gly Gly Val Arg Pro Pro Phe
139     290                 295
142 <210> SEQ ID NO: 3
143 <211> LENGTH: 230
144 <212> TYPE: PRT
145 <213> ORGANISM: Gossypium hirsutum
147 <400> SEQUENCE: 3
149 Ala Phe Gly Ser His Tyr Lys Leu Trp Arg Arg Ser Thr Thr Ser Gly
150 1               5                   10                  15
152 Lys Lys Pro Arg Gly Arg Pro Ala Gly Ser Lys Asn Lys Pro Lys Ser
153             20                  25                  30
155 Pro Ile Ile Val Ala Arg Asp Ser Pro Asn Ser Leu Arg Ser His Val
156         35                  40                  45
158 Leu Glu Ile Ser Ser Gly Ser Asp Ile Val Asp Ser Val Trp Gly Tyr
159     50                  55                  60
161 Ala Arg Arg Arg Gly Arg Gly Val Cys Val Leu Ser Gly Thr Gly Ala
162 65                  70                  75                  80
164 Val Thr Asn Val Thr Leu Arg Gln Pro Ala Ala Pro Pro Gly Ser Val
165                 85                  90                  95
167 Val Thr Leu His Gly Arg Phe Glu Ile Leu Ser Leu Thr Gly Thr Ser
168             100                 105                 110
170 Leu Pro Pro Pro Ala Pro Pro Gly Ala Gly Gly Leu Thr Val Tyr Leu
171         115                 120                 125
173 Ala Gly Val Gln Gly Gln Val Val Gly Gly Ser Val Val Gly Pro Leu
174     130                 135                 140
176 Met Ala Ser Gly Pro Val Val Leu Met Ala Ala Ser Phe Ala Asn Ala
177 145                 150                 155                 160
179 Val Tyr Asp Arg Leu Pro Leu Glu Glu Glu Asp Pro Pro Thr Val His
180                 165                 170                 175
182 Glu Gln Gln Pro Ala Ala Ser Gln Ser Ser Gly Leu Thr Gly Ser Gly
183             180                 185                 190
185 Gly Gly Asn Asn Asn Asn Cys Gly Thr Thr Gly Thr Gly Val Gly Gly
186         195                 200                 205
188 Gly Gly Gly Gly Val Pro Phe Tyr Asn Leu Gly Pro Asn Met Gly Thr
189     210                 215                 220
191 Tyr Pro Phe Pro Gly Leu
192 225                 230
195 <210> SEQ ID NO: 4
196 <211> LENGTH: 974
197 <212> TYPE: DNA
198 <213> ORGANISM: Arabidopsis thaliana
200 <400> SEQUENCE: 4
202 ccccccgacc tgcctctaca gagacctgaa gattccagaa ccccacctga tcaaaaataa   60
204 catggaactt aacagatctg aagcagacga agcaaaggcc gagaccactc ccaccggtgg  120
206 agccaccagc tcagccacag cctctggctc ttcctccgga cgtcgtccac gtggtcgtcc  180
208 tgcaggttcc aaaaacaaac ccaaacctcc gacgattata actagagata gtcctaacgt  240
210 ccttagatca cacgttcttg aagtcacctc cggttcggac atatccgagg cagtctccac  300
212 ctacgccact cgtcgcggct gcggcgtttg cattataagc ggcacgggtg cggtcactaa  360
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Input Set : D:\38-21(52743)B.rpt
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214 cgtcacgata cggcaacctg cggctccggc tggtggaggt gtgattaccc tgcatggtcg 420
216 gtttgacatt ttgtctttga ccggtactgc gcttccaccg cctgcaccac cgggagcagg 480
218 aggtttgacg gtgtatctag ccggaggtca aggacaagtt gtaggaggga atgtggctgg 540
220 ttcgttaatt gcttcgggac cggtagtgtt gatggctgct tcttttgcaa acgcagttta 600
222 tgataggtta ccgattgaag aggaagaaac cccaccgccg agaaccaccg gggtgcagca 660
224 gcagcagccg gaggcgtctc agtcgtcgga ggttacgggg agtggggccc aggcgtgtga 720
226 gtcaaacctc caaggtggaa atggtggagg aggtgttgct ttctacaatc ttggaatgaa 780
228 tatgaacaat tttcaattct ccgggggaga tatttacggt atgagcggcg gtagcggagg 840
230 aggtggtggc ggtgcgacta gacccgcgtt ttagagtttt agcgttttgg tgacaccttt 900
232 tgttgcgttt gcgtgtttga cctcaaacta ctaggctact agctatagcg gttgcgaaat 960
234 gcgaatatta ggtt 974
237 <210> SEQ ID NO: 5
238 <211> LENGTH: 1071
239 <212> TYPE: DNA
240 <213> ORGANISM: Oryza sativa
242 <400> SEQUENCE: 5
244 atggccggga tggaccctgg cgggggcggc gccggcgccg gcagctcacg gtacttccac 60
246 catctgctcc gaccgcagca gccgtcgccg ctgtcaccgc tgtcgccgac atcccatgtc 120
248 aagatggagc actccaagat gtcacccgac aagagccccg tgggcgaggg agatcacgcg 180
250 ggagggagtg gaagcggcgg cgtcggcggt gaccaccagc cgtcgtcgtc ggccatggtg 240
252 cccgtcgagg gtggcagcgg cagcgccggc ggtagtggct cgggtgggcc gacgcggcgc 300
254 ccgcgcgggc gcccgcccgg gtccaagaac aagccgaagc cgcccatcat cgtgacgcgc 360
256 gacagcccga acgcgctgca ctcgcacgtg ctcgaggtcg ccggcggcgc cgacgtcgtc 420
258 gactgcgtgg ccgagtacgc ccgccgccga gggcgcggcg tgtgcgtgct gagcggcggc 480
260 ggcgccgtcg tcaacgtggc gctgcggcag ccgggcgcgt cgccgccggg cagcatggtg 540
262 gccacgctgc ggggccggtt cgagatccta tctctcacgg gcacggtcct gccgcctccc 600
264 gcgccacccg gcgcgagcgg cctcaccgtg ttcctctccg gcggccaggg ccaggtgatc 660
266 ggcggcagcg tggtgggccc gctggtcgcc gcggggcccg tcgtcctgat ggcggcctca 720
268 ttcgcgaacg ccgtgtacga gcggctgccg ctggagggcg aggaagagga ggtcgccgcg 780
270 cccgccgccg gaggcgaagc acaagatcaa gtggcacaat cagctggacc cccagggcag 840
272 caaccggcgg cgtcacagtc ctccggcgtg acaggaggcg acggcaccgg cggcgccggt 900
274 ggcatgtcgc tctacaacct cgccgggaat gtgggaggct atcagctccc cggagacaac 960
276 ttcggaggtt ggagcggcgc cggcgccggc ggagtcaggc caccgttctg acccatgtct 1020
278 tagcatccag ttcaaaaatt ctccaaatta agaattgcgc agtgcagaag c 1071
281 <210> SEQ ID NO: 6
282 <211> LENGTH: 693
283 <212> TYPE: DNA
284 <213> ORGANISM: Gossypium hirsutum
286 <400> SEQUENCE: 6
288 gcgttcggca gccactacaa gctctggagg aggagtacca cgtcgggaaa aaaacctaga 60
290 ggacgtccag cgggatccaa gaacaagccg aaatcaccca taatcgttgc tcgcgacagt 120
292 ccgaactcgt tgagatccca cgtgctcgaa atctcttccg gttcagacat agttgactcg 180
294 gtgtggggct acgcacggcg gcgcggccgt ggcgtttgtg tactcagcgg gaccggtgcc 240
296 gtcacgaatg tcacgttaag gcaaccggct gctccacctg gaagtgtcgt aacactacac 300
298 ggtcggttcg agattttatc tttaaccggg acttctctcc caccgccagc accgcctgga 360
300 gctggtggat tgacggttta tctcgccggc gttcaaggtc aagtagtcgg aggaagcgtg 420
302 gtgggaccgt taatggcttc aggtccagtc gtattaatgg ctgcatcgtt cgccaatgca 480
304 gtttacgata ggttacctct cgaagaagaa gacccaccaa ccgttcacga acaacaacca 540
306 gcagcttcac aatcatccgg attaaccggc agtggcggcg gaaacaacaa caactgtgga 600

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acaaccggaa ccggcgtagg cggcggcggc ggcggggttc ctttctataa tttgggacca 660
aacatgggaa cttatccatt tccaggatta tga 693

<210> SEQ ID NO: 7
<211> LENGTH: 99
<212> TYPE: PRT
<213> ORGANISM: Arabidopsis thaliana
<400> SEQUENCE: 7

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1 5 10 15
Ser His Val Leu Glu Val Ser Pro Gly Ala Asp Ile Val Glu Ser Val
20 25 30
Ser Thr Tyr Ala Arg Arg Arg Gly Arg Gly Val Ser Val Leu Gly Gly
35 40 45
Asn Gly Thr Val Ser Asn Val Thr Leu Arg Gln Val Val Thr Leu His
50 55 60
Gly Arg Phe Glu Ile Leu Ser Leu Thr Gly Thr Val Leu Pro Pro Pro
65 70 75 80
Ala Pro Pro Gly Ala Gly Gly Leu Ser Ile Phe Leu Ala Gly Gly Gln
85 90 95
Gly Gln Val

<210> SEQ ID NO: 8
<211> LENGTH: 99
<212> TYPE: PRT
<213> ORGANISM: Arabidopsis thaliana
<400> SEQUENCE: 8

Pro Lys Pro Pro Thr Ile Ile Thr Arg Asp Ser Pro Asn Val Leu Arg
1 5 10 15
Ser His Val Leu Glu Val Thr Ser Gly Ser Asp Ile Ser Glu Ala Val
20 25 30
Ser Thr Tyr Ala Thr Arg Arg Gly Cys Gly Val Cys Ile Ile Ser Gly
35 40 45
Thr Gly Ala Val Thr Asn Val Thr Ile Arg Gln Val Ile Thr Leu His
50 55 60
Gly Arg Phe Asp Ile Leu Ser Leu Thr Gly Thr Ala Leu Pro Pro Pro
65 70 75 80
Ala Pro Pro Gly Ala Gly Gly Leu Thr Val Tyr Leu Ala Gly Gly Gln
85 90 95
Gly Gln Val

<210> SEQ ID NO: 9
<211> LENGTH: 107
<212> TYPE: PRT
<213> ORGANISM: Gossypium hirsutum
<400> SEQUENCE: 9

Pro Lys Ser Pro Ile Ile Val Ala Arg Asp Ser Pro Asn Ser Leu Arg
1 5 10 15
Ser His Val Leu Glu Ile Ser Ser Gly Ser Asp Ile Val Asp Ser Val
20 25 30
Trp Gly Tyr Ala Arg Arg Arg Gly Arg Gly Val Cys Val Leu Ser Gly
35 40 45

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/06/2005
PATENT APPLICATION: US/10/783,710A TIME: 16:07:24

Input Set : D:\38-21(52743)B.rpt
Output Set: N:\CRF4\01062005\J783710A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:11; Xaa Pos. 1,3,5,7,8,14,16,22,23,24,26,28,29,30,31,33,34,37,41,44,45
Seq#:11; Xaa Pos. 46,47,49,51,53,56,57,60,61,62,63,64,65,66,67,68,70,73,77
Seq#:11; Xaa Pos. 85,95,98,99,100,104

VERIFICATION SUMMARY DATE: 01/06/2005
PATENT APPLICATION: US/10/783,710A TIME: 16:07:24

Input Set : D:\38-21(52743)B.rpt
Output Set: N:\CRF4\01062005\J783710A.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
M:341 Repeated in SeqNo=11